CLAIMS

What is claimed is:

1. A drill steel for securing bolts in a mine roof, comprising:

a head having a first end engageable with a roof bolt, and an extension on a second end of said head extending therefrom, said extension having a machined recess formed therein;

a collar having an opening therethrough; and

a body having a first end and a second end, wherein:

said first end is adapted for establishing a press fit connection between said first end of said body and said machined recess of said socket extension, and

said second end is adapted for establishing a press fit connection between said collar and said second end of said body;

wherein both said first end and said second end of said body and said machined recess in said socket extension are formed as polygonal in cross section.

2. The drill steel of Claim 1 wherein said first end of said body is square in cross section and said socket recess is likewise square.

3. The drill steel of Claim 1 wherein said second end of said body is hexagonal in cross section and the opening of said collar conforms thereto.

4. The drill steel of Claim 1 wherein both of said polygonal surfaces on said body are square in cross section.

5. The drill steel of Claim 1 wherein both of said polygonal surfaces on said body are rectangular in cross section.

6. The drill steel of Claim 1 wherein both of said polygonal surfaces on said body are hexagonal in cross section.

7. The drill steel of Claim 1 wherein said first end is adapted for establishing a press fit connection between said first end of said body and said machined recess of said extension by having machined surfaces on said first end of said body.

8. The drill steel of Claim 1 wherein said second end is adapted for establishing a press fit connection between said collar and said second end of said body by having machined surfaces on said second end of said body.

9. The drill steel of Claim 1 wherein said first end of said head defines a socket for engaging said roof bolts.

10. The drill steel of Claim 1 wherein:

said first end is adapted for establishing a press fit connection between said first end of said body and said machined recess of said extension by having machined surfaces

on said first end of said body;

said second end is adapted for establishing a press fit connection between said collar and said second end of said body by having machined surfaces on said second end of said body; and

said machined surfaces on said second end of said body are longer than said machined surfaces on said first end of said body.

11. A drill steel for securing bolts in a mine roof, comprising:

a generally elongate body, said body having a first machined end machined into the form of a polygon in cross-section, and a second machined end opposite said first machined end, said second machined end machined into the form of a polygon in cross-section;

a socket, said socket comprising a first end engageable with a bolt, and an extension extending from a second end of said socket and press-fit onto said first machined end of said elongate body, said extension having a machined recess formed therein defined by a plurality of walls extending into said extension, said plurality of walls defining a perimeter of said machined recess, said perimeter of said machined recess being dimensioned to form a press-fit connection between said extension and said first end of said elongate body; and

an annular collar press-fit onto said second machined end of said elongate body, said annular collar having a machined opening extending therethrough and defining a perimeter of said machined opening, said perimeter of said machined opening being

dimensioned to form a press-fit connection between said annular collar and said second end of said elongate body.

12. The drill steel of Claim 11 wherein said first machined end of said body is square in cross section and said socket recess is likewise square.

13. The drill steel of Claim 11 wherein said second machined end of said body is hexagonal in cross section and the machined opening of said collar conforms thereto.

14. The drill steel of Claim 11 wherein both said first machined end and said second machined end of said body are rectangular in cross section.

15. The drill steel of Claim 11 wherein both said first machined end and said second machined end of said body are square in cross section.

16. The drill steel of Claim 11 wherein both said first machined end and said second machined end of said body are hexagonal in cross section.

17. The drill steel of Claim 11 wherein said second machined end of said body is longer than said first machined end of said body.